

MEMORIAL RESOLUTION EUGENE VAN TAMELEN

(1925 - 2009)

Eugene Earle van Tamelen was born in Zeeland, a small town in western Michigan, on July 20, 1925. He attended Hope College in Holland, Michigan. Initially he was interested in automobile design, but changed direction after being exposed to chemistry in courses at Hope. He graduated from Hope in 1947 and continued his education at Harvard, where he received his Ph.D. in chemistry in 1950. He published his first paper in the *Journal of the American Chemical Society* while still a Hope undergraduate. This was the first research paper published by a Hope student in a peer reviewed journal.

After receiving his Ph.D., van Tamelen began his academic career at the University of Wisconsin. He rapidly rose to the rank of full professor. In 1962 he was recruited to Stanford as part of a major rebuilding of the Chemistry Department. During his career van Tamelen published over 200 scientific papers in the most prestigious journals; he was a mentor to more than 200 graduate students (including a future Nobel Laureate) and post doctoral scholars, who went on to very successful careers both in academia and in industry. Gene (referred to as VT by students and other chemists) worked in the field of synthetic organic chemistry. He was a master of total synthesis of both natural products and of molecules that nature never made. His intelligence, creativity, and his amazing ability to visualize molecules in three dimensions led to many breakthroughs in the synthesis of complex molecules. His work was characterized by extraordinary imagination. He strived for, and succeeded in accomplishing, elegant and simple solutions to difficult and complex problems - a paradigm that he always kept in mind. Van Tamelen made numerous contributions to the organic chemical synthesis of biologically important molecules. He worked on explicating the biological synthesis of cholesterol, a molecule that is essential to many organisms including humans. He invented an ingenious synthesis of squalene oxide, and so proved it was made in the liver and is the penultimate intermediate and trigger for the cascade, from which in a single step the entire, complex cyclic core of steroids emerges. Pioneering work like this and many other developments of reactions and methods that enabled the synthesis of natural products, now referred to as a biomimetic approach to synthesis, became very important in the pharmaceutical industry. Gene's interests spanned areas other than natural products. He synthesized Dewar benzene, a highly strained molecule related to benzene that was thought by many chemists to be impossible to make.

Van Tamelen was a member of the National Academy of Sciences and received many of the major awards and prizes in chemistry. He served as Chair of the Chemistry Department, where he played an important role in building the department. He was extremely generous with his time and mentored new faculty members. Beyond chemistry, Gene had strong interests in architecture. He designed a vacation home in Pajaro Dunes

near Monterey. He also maintained his love of cars and was as versed in the details of the design of his latest as he was in the design of molecules.

Gene van Tamelen had a flare for science and a zest for life that was infectious. He was liked, admired, and respected by everyone who knew him. He is survived by Mary, his wife of 58 years, two daughters, Jane van Tamelen and Carey Haughy, a son, Peter, and five grandchildren.

Committee:

Michael Fayer (Chair)
James Collman
John Brauman